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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,397	11/12/2003	Jay Wallace	071469-0306776	4401

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EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,397

Applicant(s)

WALLACE ET AL.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1103,0304,0904</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2002/0195201 A1 to Beer et al.

3. Beer et al. disclose a dual chamber apparatus comprising: a first chamber (102); a second chamber (110) which is configured to be coupled to said first chamber at an interface, each of said first chamber and said second chamber having a transfer opening (120, 112; respectively) located at said interface; and an insulating plate (108) located on one of said first chamber and second chamber at said interface and configured to have a low thermal conductivity (paragraph 44); wherein said first chamber and said second chamber can be independently controlled at different temperatures when said first chamber and said second chamber are coupled together (paragraph 42).

4. With respect to claim 2, the apparatus further comprises: at least one alignment device (bolts; paragraph 46) on one of said first chamber and said second chamber; and at least one alignment hole (406) corresponding to each said at least one alignment device on the other of said first chamber and said second chamber (paragraph 46).

5. With respect to claim 3, the apparatus further comprises: at least one chamber fastening device (bolts; paragraph 46) on one of said first chamber and said second chamber; and at least chamber fastening hole (406) corresponding to each said at least one chamber fastening device on the other of said first chamber and said second chamber.

Art Unit: 1763

6. With respect to claim 4, which is drawn to intended uses of each of the first and second chambers, the courts have ruled that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). The courts have also ruled that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). In claim 4, there are no structural limitations, only intended use limitations.

7. With respect to claim 5, the apparatus further comprises: a gate valve assembly (see paragraph 51) for sealing said first chamber from said second chamber.

8. With respect to claim 6, said first chamber and said second chamber are essentially evacuated and a seal created between said first chamber and said second chamber is a vacuum seal (see paragraph 41).

9. With respect to claim 7, said insulating plate is located on said first chamber (the insulating plate is coupled to the transfer opening, 120, of the first chamber, 102; see paragraph 41).

10. With respect to claims 9 and 10, said insulating plate comprises a contact member (areas of face in contact with 114) to separate said first chamber from said second chamber by a predetermined distance (height of recessed volumes, 408). The contacting member/contacting face areas and recesses together make up the whole of the interface surface area, thus, a surface area of said contact member is substantially smaller than a surface area of said insulating plate.

11. With respect to claim 11, in disclosing the apparatus, Beer et al. also disclose a method for manufacturing a dual chamber system comprising a first chamber (102) and a second chamber (110), the method comprising: coupling an insulating plate (108) around a transfer opening (404) on one of said first chamber and said second chamber; aligning said first chamber with said second chamber at an interface (see Figure 3); coupling said first chamber to said second chamber (via bolts and bolt holes; paragraph

Art Unit: 1763

46); forming a vacuum seal between said first chamber and said second chamber (paragraph 41); and controlling a temperature within said first chamber and said second chamber independently when said first chamber and said second chamber are coupled together (paragraph 42).

12. With respect to claim 12, the method further comprises: separating said first chamber from said second chamber by a predetermined distance (height of recessed volumes) by a contact member (areas of face in contact with 114).

13. With respect to claim 13, Beer et al. disclose a dual chamber apparatus comprising: a first chamber (102); a second chamber (110) which is configured to be coupled to said first chamber at an interface, each of said first chamber and said second chamber having a transfer opening (120, 112; respectively) located at said interface; and an insulating plate (108) located on one of said first chamber and second chamber at said interface; a contact member (areas of face in contact with 114) configured to separate said first chamber from said second chamber by a predetermined distance (height of recessed volumes), the surface area of said contact member is substantially smaller than a surface area of said insulating plate (The contacting member/contacting face areas and recesses together make up the whole of the interface surface area, thus, a surface area of said contact member is substantially smaller than a surface area of said insulating plate); at least one alignment structure (bolts, paragraph 46) on one of said first chamber and said second chamber; and at least one complimentary alignment structure (bolt holes, paragraph 46) corresponding to each said at least one alignment structure on the other of said first chamber and said second chamber.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1763

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0195201 A1 to Beer et al.

17. Beer et al. disclose the invention substantially as claimed and as described above.

18. However, while Beer et al. do teach that the material of the insulating plate may be made from any material having a thermal conductivity less than aluminum (paragraph 44), which would include Teflon, Beer et al. fail to explicitly and specifically teach the insulating plate is constructed of Teflon.

19. The courts have ruled that the selection of a known material based on its suitability for its intended use is prima facie obviousness. Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945); and that reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle. 325 U.S. at 335, 65 USPQ at 301—which is the case here.

20. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided polytetrafluoroethylene (Teflon) as the material for the insulating plate in Beers et al. in order to take advantage of the materials insulative properties and low thermal conductivity coefficient as discussed in Beer et al.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5223113, US Patent 5294572 and US Patent Publication 20030159780 each disclose thermal insulation between two adjacent chambers.

Art Unit: 1763

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Patent Examiner
Art Unit 1763
March 29, 2005